



Department of Energy

Washington, DC 20585

March 2, 2012

Dr. Keith McConnell
Director, Decommissioning and Uranium Recovery Licensing Directorate
U.S. Nuclear Regulatory Commission
Mail Stop T-8F5
11545 Rockville Pike
Rockville, MD 20852

Dear Dr. McConnell:

The purpose of this letter is to provide Department of Energy (DOE) concerns relative to the disposal of mine waste at the Church Rock mill site near Gallup, New Mexico. In September 2011, the Environmental Protection Agency (EPA) issued an Action Memorandum approving the excavation of approximately 871,000 cubic yards of waste material from the Northeast Church Rock (NECR) mine site.¹ As you know, the proposed plan is to dispose of the mine waste on top of the disposal cell at the Church Rock mill site. This action would be contingent on issuance of an appropriate decision document by EPA Region 6 and modification of United Nuclear Corporation's (UNC) license by the U.S. Nuclear Regulatory Commission (NRC).

DOE supports mitigating threats to human health and the environment posed by the mine waste, and is committed to working with EPA and NRC regarding disposal of the mine waste at the mill site. Since the design process is underway, I wanted to identify what DOE understands will be the conditions under which the Department becomes responsible for long-term care of mine waste at the mill site. Although DOE does not have authority for approving the final design, I want to briefly summarize some technical issues and concerns that have been raised about the proposed action since it was first proposed in 2009.

1. Waste from the NECR mine placed on the existing cell complex is, and will be, regulated under the Uranium Mill Tailings Radiation Control Act (UMTRCA). Additionally, any other material on the processing site will be remediated to UMTRCA standards as well. It is our understanding that the licensee would also have to comply with NRC requirements for disposal of non-11(e)2 waste.²
2. The co-location of waste from the NECR Mine will not affect the integrity of the cell complex. EPA Region 9 released an Engineering Evaluation/Cost Analysis (EE/CA) in May 30, 2009, which explored alternatives and sub-options for the non-time critical removal action of waste from the NECR Mine Site. DOE reviewed the EE/CA with a focus on possible long-term care

¹ U.S. Environmental Protection Agency. (2011, September 29). Action Memorandum: Request for a Non-Time-Critical Removal Action at the Northeast Church Rock Mine Site, McKinley County, New Mexico, Pinedale Chapter of the Navajo Nation. *U.S. Environmental Protection Agency Region 9: Superfund*. Retrieved December 9, 2011, from <http://yosemite.epa.gov/r9/sfund/r9fdocw.nsf/3dc233e6c5d6056f88257426007417a2/da385d730c752bb9f825791a006e62c9?OpenDocument>.

² U.S. Nuclear Regulatory Commission. (2003, June). Standard Review Plan for the Review of a Reclamation Plan for Mill Tailings Under Title II of the Uranium Mill Tailings Radiation Control Act of 1978, NUREG-1620, Rev 1. *U.S. Nuclear Regulatory Commission*. Retrieved January 30, 2012, from <http://www.nrc.gov/reading-rm/doc-collector/s/nuregs/staff/sr1620/sr1620r1.pdf>.



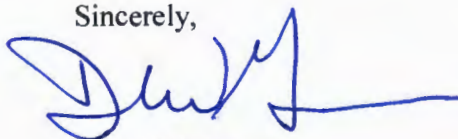
implications, and provided its comments to EPA in July 2009.³ DOE stated that adding mine waste to the mill tailings cells should be done without causing excessive loading on the existing cell or accelerating drainage of remaining pore fluid from the existing tailings.

3. DOE has an additional concern regarding the condition of the existing cell complex. In 2002, DOE submitted a letter to the NRC regarding differential settling and erosion at the cell complex.⁴ It is our understanding that NRC directed the General Electric Company to make a number of repairs to the site that may have addressed this concern.⁵
4. DOE acceptance of the UMTRCA site for long-term surveillance and maintenance (LTS&M) is established through the NRC site transfer process. This includes:
 - A determination by NRC that the UMTRCA Title II site is deemed ready for transfer to DOE for long-term care without any outstanding technical, regulatory, or jurisdiction issues.
 - With input from DOE, that NRC identifies an appropriate surety cost estimate to enable DOE to effectively perform its LTS&M duties, including any that are unique because of the mine waste. Appropriate LTS&M costs could include those necessary for cell maintenance and inspection; sampling and other activities for groundwater compliance; vegetation control, if necessary; and maintenance and evaluation of the effectiveness of institutional controls.

In summarizing these concerns, I do want to recognize that EPA demonstrated a commitment to address DOE's comments about cell integrity (see No. 2 above) in the "Responsiveness Summary" of its Action Memorandum and has since discussed them with us. EPA work on these will be important input to the interagency work group for this project and DOE believes that these issues can be addressed or shown not to be a concern.

DOE looks forward to continuing to work with NRC, EPA, as well as the Navajo Nation on this important project. The DOE lead for this effort is Dr. David Shafer (970-248-6091); he is the Office of Legacy Management (LM) team leader responsible for UMTRCA sites. LM's Church Rock mill site, site manager and DOE principal on the interagency design team is Deb Steckley (970-248-6042). Dr. April Gil (970-248-6020) is our lead for the Navajo Five Year Plan. I am available at 202-586-8324 should you want to discuss this further.

Sincerely,



David W. Geiser
Director
Office of Legacy Management

³ U.S. Department of Energy. (2009, June 15). Department of Energy (DOE) Comments on EPA's May 30, 2009 Engineering Evaluation and Cost Analysis. *U.S. Environmental Protection Agency Region 9: Superfund*. Retrieved December 9, 2011 from <http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/3dc283e6c5d6056f88257426007417a2/1c35338f3cb2e74f882577b200596de9!OpenDocument>.

⁴ U.S. Department of Energy. (2002, July 3). June 13, 2002 Visit to the Church Rock, New Mexico, UMTRCA Title II Site (Letter to U.S. Nuclear Regulatory Commission). *U.S. Nuclear Regulatory Commission*. Retrieved December 9, 2011, from <http://pbadupws.nrc.gov/docs/ML0220/ML022060044.pdf>.

⁵ U.S. Nuclear Regulatory Agency. (2003, January 7). Erosion Protection Design Concerns Identified at Recent Site Visit (TAC NO. L52459). *U.S. Nuclear Regulatory Commission*. Retrieved December 12, 2011, from <http://pbadupws.nrc.gov/docs/ML0300/ML030080471.pdf>.

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